Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled data based on original data using

LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: LUMARK

Report Number: P979128

Luminaire Tested: **WPSLED15S-40W-3000K**

Issue Date: 03/31/2025

Report Generated By 670245763

Cooper Lighting Solutions Photometric Lab
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Peachtree City, GA 30269

Scaled Data Report

Test Information

Test Method:	LM-79-08
Report Number:	P979128
Test Lab:	Cooper Lighting Solutions
Issue Date:	03/31/2025
Manufacturer:	COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line:	LUMARK
Catalog Number:	WPSLED15S-40W-3000K
Description:	LUMARK WALL PACK LED SMALL 80CRI CCT AND LUMEN SELECTIVE FIXTURE OPERATING @40W-3000K
Light Source:	3000K CCT, 80 CRI LEDS
Ballast/Driver:	ELECTRONIC DRIVER

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	5547.7 lumens
Efficiency:	N/A
Efficacy:	136.0 lumens/watt
Luminous Opening:	Rectangular w/ Sides (W: 0.61' x L: 0.12' x H: 0.44')
IES Classification:	Type IV - Short
BUG Rating:	B1 - U3 - G3

Input Watts (W):	40.8
Input Voltage (V):	120
Input Current (Ain):	NR
Voltage Rise (V):	NR
Power Factor:	NR
Total Harmonic Distortion (THDi):	NR
Frequency (hertz):	60
Stabilization Time:	NR
Operation Time:	NR
Ambient Temperature (°C):	NR
Test Distance:	28.75 FT

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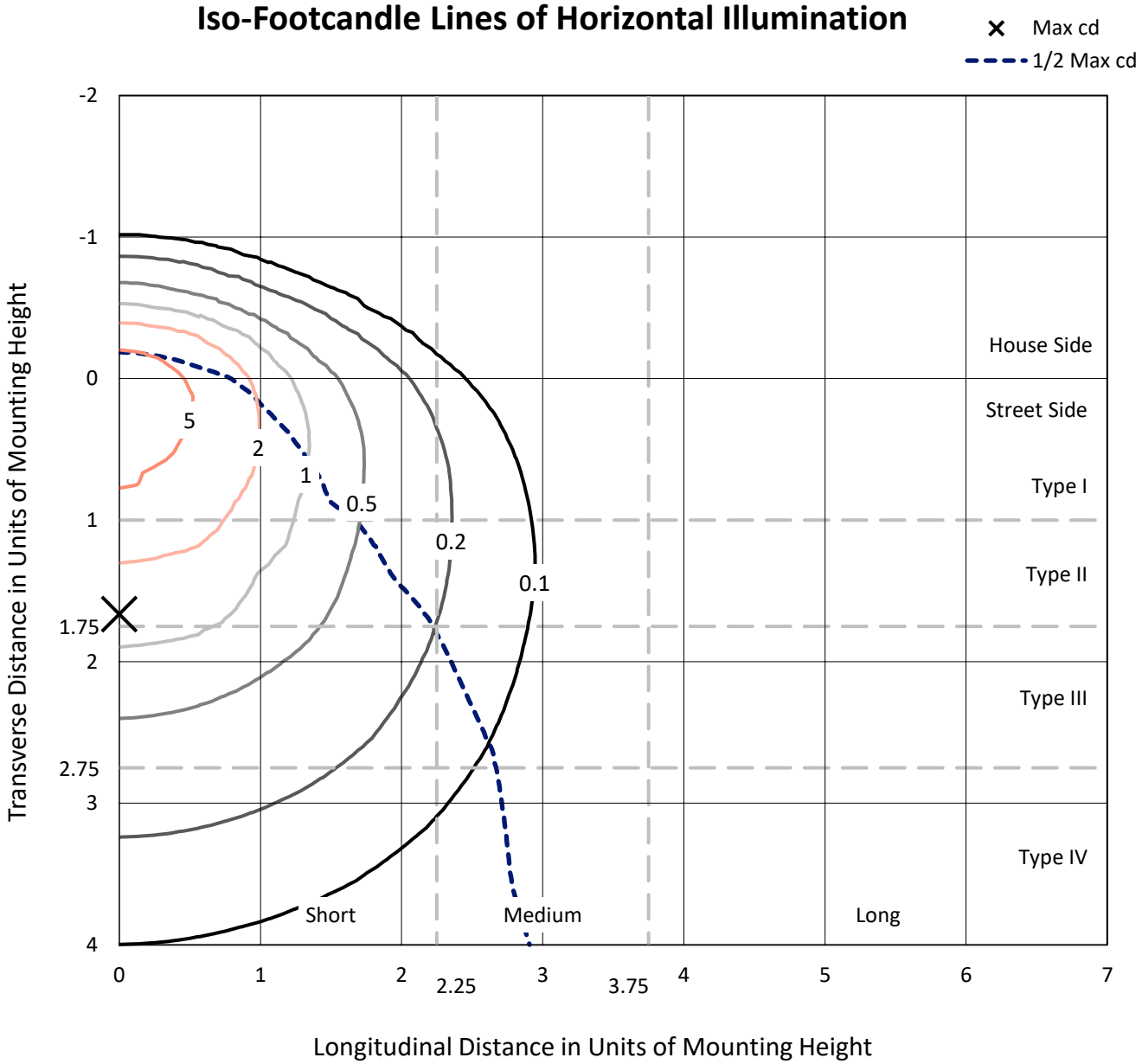
Iso-Footcandle Lines of Horizontal Illumination



Based on 15 foot mounting height. Maximum calculated value = 8.4 fc
Type IV - Short - N/A

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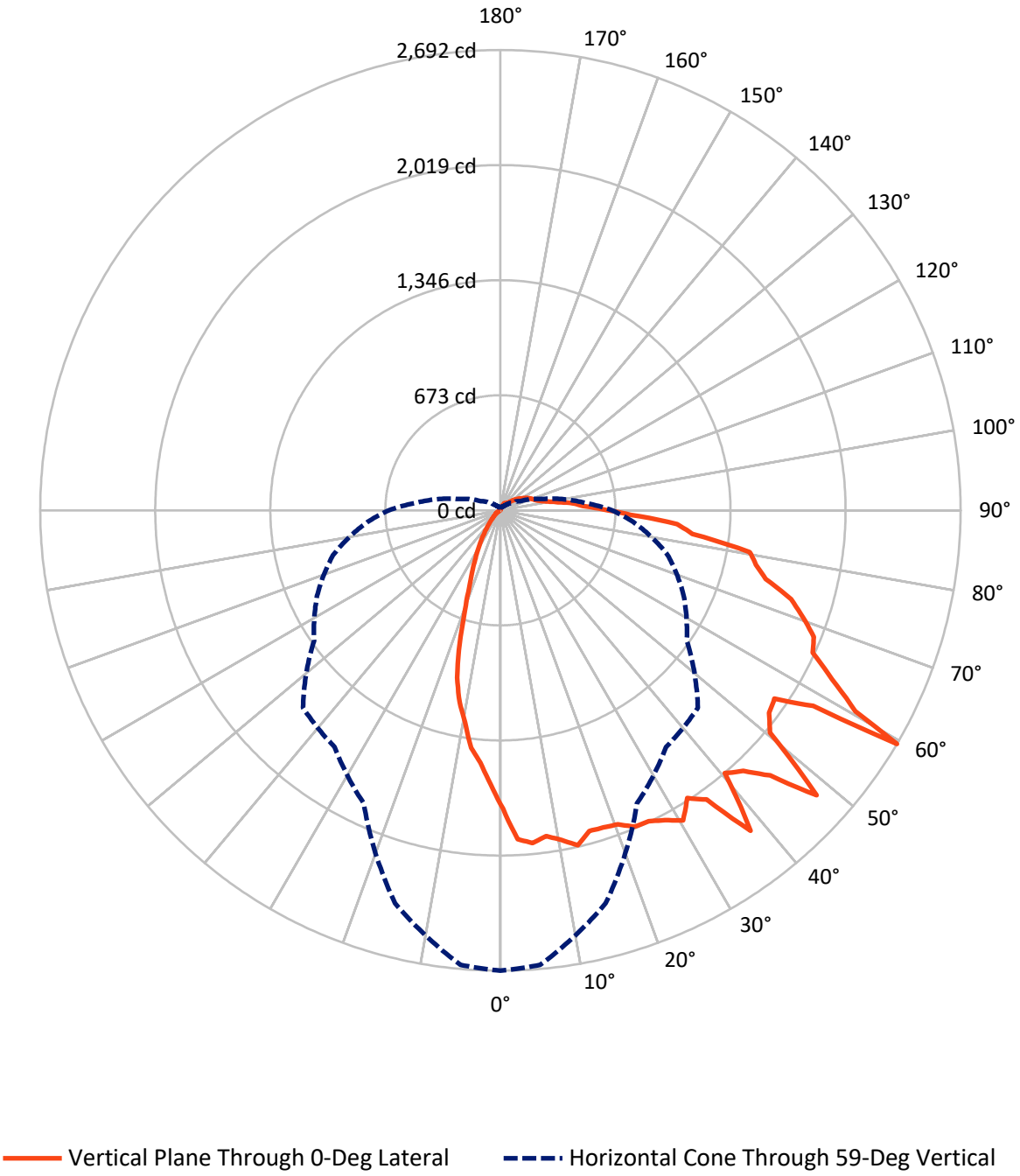
Luminous Intensity Polar Plot



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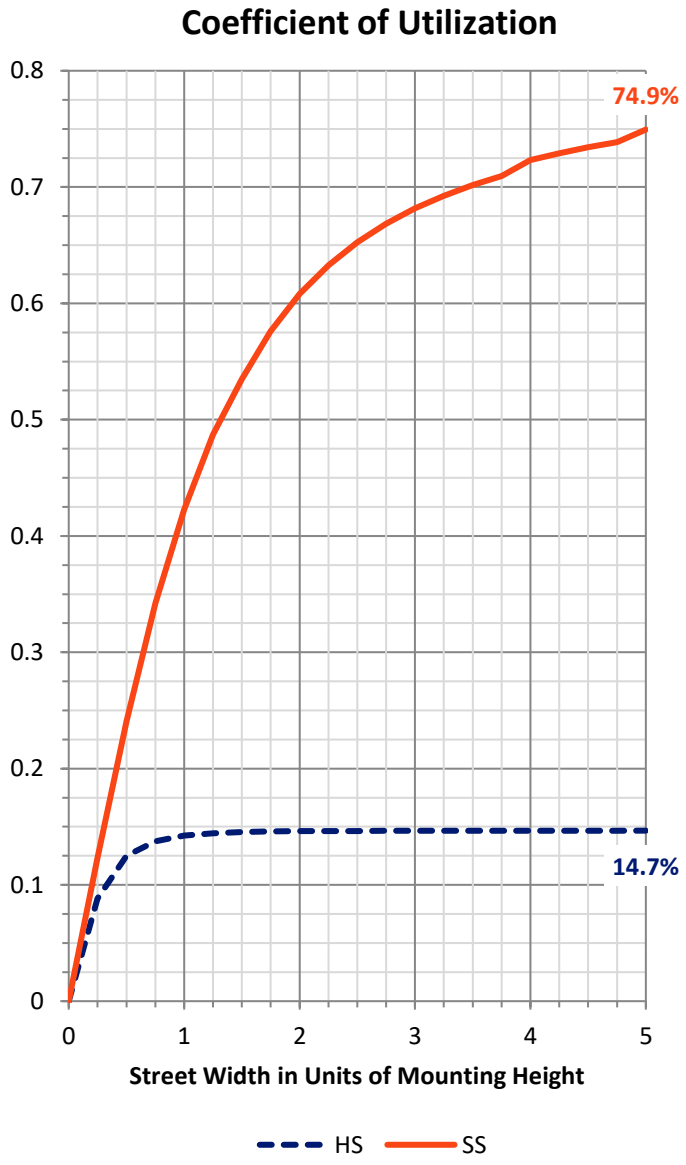
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	823.3	6.7	830.0
	% Fixture	14.8	0.1	15.0
Street Side	Lumens	4390.3	327.5	4717.7
	% Fixture	79.1	5.9	85.0
Total	Lumens	5213.6	334.2	5547.7
	% Fixture	94.0	6.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.3	2.9
10°-20°	432.5	7.8
20°-30°	606.7	10.9
30°-40°	719.0	13.0
40°-50°	780.0	14.1
50°-60°	779.2	14.0
60°-70°	761.9	13.7
70°-80°	609.8	11.0
80°-90°	362.0	6.5
90°-100°	147.5	2.7
100°-110°	76.6	1.4
110°-120°	49.3	0.9
120°-130°	29.0	0.5
130°-140°	16.1	0.3
140°-150°	10.2	0.2
150°-160°	4.4	0.1
160°-170°	1.1	0.0
170°-180°	0.1	0.0
0°-90°	5213.6	94.0
0°-180°	5547.7	100.0



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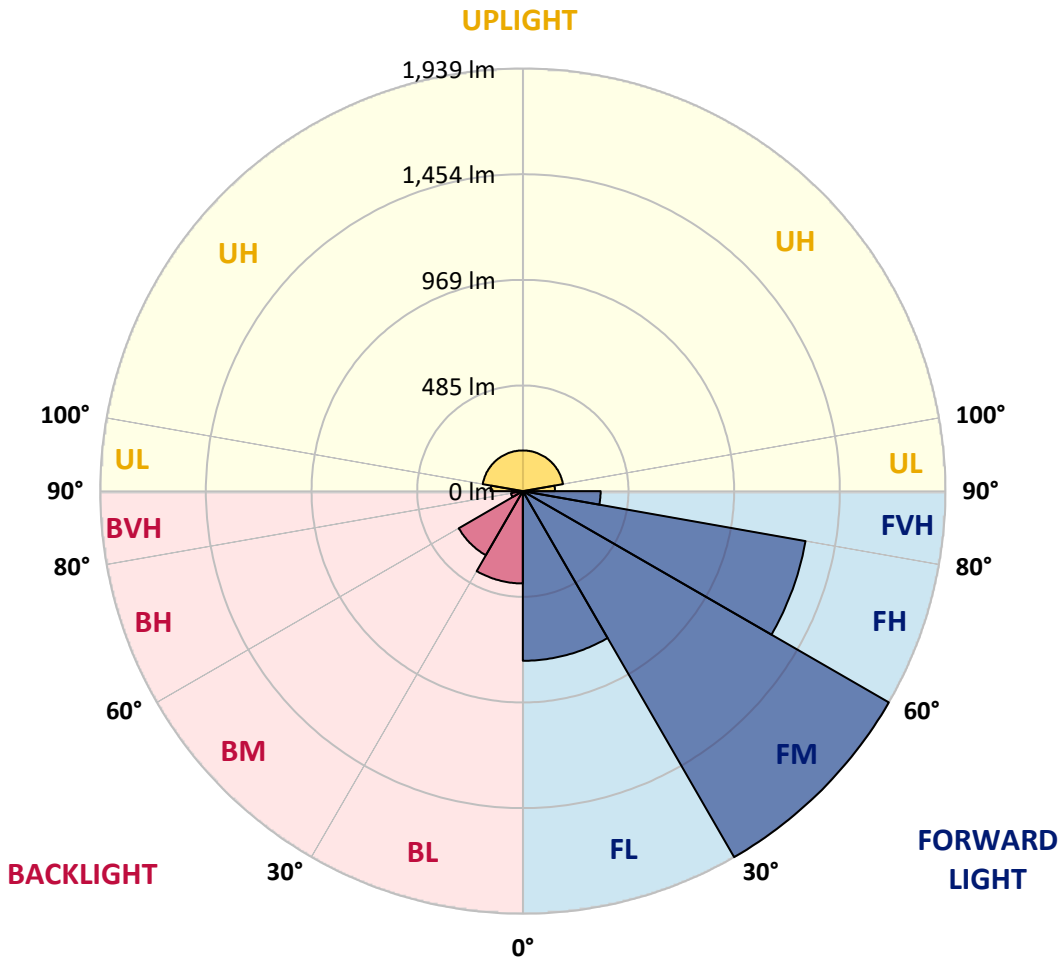
LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit B	U	G
FL	(0°-30°)	778.0	14.0			
FM	(30°-60°)	1938.6	34.9			
FH	(60°-80°)	1316.8	23.7			G1/1800
FVH	(80°-90°)	356.9	6.4			G3/500
BL	(0°-30°)	423.5	7.6	B1/500		
BM	(30°-60°)	339.6	6.1	B1/1000		
BH	(60°-80°)	55.0	1.0	B0/110		G0/110
BVH	(80°-90°)	5.2	0.1			G0/10
UL	(90°-100°)	147.5	2.7		U3/500	
UH	(100°-180°)	186.6	3.4		U3/500	

BUG Rating: B1-U3-G3
Type IV Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1745.0	1745.0	1745.0	1745.0	1745.0	1745.0	1745.0	1745.0	1745.0	1745.0	1745.0
2.5°	1925.8	1925.8	1924.4	1923.0	1923.0	1920.2	1913.3	1896.6	1852.1	1780.5	1744.4
5°	1954.3	1961.3	1942.5	1905.6	1873.0	1866.7	1897.3	1902.9	1891.0	1802.8	1732.5
7.5°	1923.0	1921.6	1913.3	1880.6	1909.8	1957.1	1845.9	1854.9	1868.1	1791.6	1692.2
10°	1960.6	1962.7	1957.8	1916.1	1901.5	1842.4	1909.1	1812.5	1842.4	1767.3	1647.7
12.5°	2009.9	2015.5	1992.6	1959.2	1896.6	1868.1	1823.6	1872.3	1811.8	1752.7	1619.2
15°	1946.0	1958.5	1907.0	1870.2	1960.6	1870.2	1834.0	1818.7	1772.2	1740.2	1599.7
17.5°	1950.1	1966.1	1959.2	1928.6	1859.8	1914.0	1830.6	1789.5	1762.4	1731.1	1597.0
20°	1959.9	1962.7	1924.4	1885.5	1919.6	1834.7	1838.2	1788.2	1766.6	1706.8	1567.1
22.5°	2009.9	2016.9	1961.3	1910.5	1860.5	1889.7	1857.0	1775.6	1744.4	1679.7	1526.7
25°	2014.1	2016.9	1979.3	1926.5	1891.0	1845.2	1792.3	1736.7	1708.2	1638.7	1483.6
27.5°	2051.0	2042.6	1957.1	1923.7	1894.5	1822.2	1811.8	1729.1	1662.3	1583.8	1448.2
30°	2105.2	2088.5	2061.4	1958.5	1879.2	1834.0	1784.0	1720.0	1617.8	1533.0	1412.0
32.5°	2006.5	1993.9	1966.1	2014.8	1924.4	1822.9	1729.1	1644.2	1587.2	1474.6	1367.5
35°	2077.4	2041.9	1945.3	1934.2	1974.5	1795.1	1707.5	1621.3	1539.3	1426.6	1323.7
37.5°	2377.7	2346.4	2146.9	1955.0	1905.0	1834.7	1699.9	1644.9	1489.9	1373.1	1260.5
40°	2021.8	2007.2	2009.2	2158.0	1872.3	1824.3	1663.7	1620.6	1439.1	1314.0	1199.3
42.5°	2082.9	2054.4	1975.9	1950.1	2015.5	1771.5	1653.3	1566.4	1379.4	1245.2	1122.1
45°	2211.6	2185.8	2057.9	1953.6	1872.3	1778.4	1617.8	1500.3	1335.6	1164.5	1050.5
47.5°	2489.6	2452.1	2151.1	1962.0	1823.6	1797.9	1617.1	1456.5	1279.9	1087.4	972.6
50°	2042.6	2024.5	2150.4	2163.6	1787.5	1678.3	1587.2	1398.1	1229.9	1006.0	889.2
52.5°	1967.5	1952.9	1932.8	1959.9	1917.5	1629.6	1552.5	1336.9	1165.9	941.4	822.5
55°	1945.3	1918.2	1883.4	1825.7	1866.0	1617.1	1449.6	1282.7	1106.1	875.3	760.6
57.5°	2158.7	2099.6	1948.8	1818.0	1686.6	1699.2	1375.2	1229.9	1049.1	816.2	690.4
59°	2692.0	2669.0	2379.1	1891.0	1690.1	1633.1	1330.7	1183.3	1013.7	779.4	653.5
60°	2385.4	2354.8	2516.1	2036.4	1717.9	1567.8	1309.8	1159.7	994.9	760.6	636.1
62.5°	2177.5	2157.3	2104.5	2112.1	1875.8	1519.1	1339.0	1106.1	923.3	706.4	586.8
65°	2007.2	1996.0	1975.9	1902.9	1841.7	1558.0	1286.2	1068.6	870.4	638.9	504.7
67.5°	1977.3	1964.0	1913.3	1822.9	1684.6	1536.5	1200.7	992.1	800.2	568.7	426.2
70°	1878.5	1871.6	1815.3	1749.9	1615.7	1421.8	1175.6	951.1	743.2	495.7	346.2
72.5°	1777.7	1764.5	1727.0	1665.1	1556.6	1323.7	1104.0	900.3	661.2	419.2	276.7
75°	1602.5	1595.6	1574.7	1530.2	1425.2	1241.7	1015.7	798.8	584.7	350.4	212.0
77.5°	1528.1	1517.0	1455.8	1394.0	1289.0	1116.6	902.4	716.8	507.5	276.0	155.7
80°	1478.8	1471.8	1419.0	1323.0	1211.8	1022.7	826.6	642.4	435.9	210.0	111.2
82.5°	1130.5	1138.8	1097.1	1075.5	1003.9	871.1	693.2	551.3	353.2	150.9	80.6
85°	1038.0	1025.5	994.9	954.6	889.2	745.3	573.6	448.4	275.3	107.8	58.4
87.5°	762.7	755.7	751.6	747.4	691.8	590.3	456.1	342.1	210.7	76.5	42.4
90°	599.3	598.6	590.3	560.4	526.3	456.1	346.9	252.4	150.2	55.6	33.4
92.5°	481.1	482.5	470.0	451.9	413.7	356.0	263.5	183.5	111.9	41.7	28.5
95°	427.6	419.9	401.8	372.0	340.0	296.9	209.3	144.6	89.7	34.8	25.0
97.5°	339.3	337.2	329.5	318.4	293.4	249.6	172.4	119.6	73.0	29.9	22.9
100°	281.6	281.6	273.9	258.6	241.2	214.8	149.5	104.3	60.5	27.8	22.2
102.5°	241.9	241.2	238.5	224.6	208.6	175.2	130.0	91.8	50.1	26.4	22.2
105°	218.3	216.9	212.7	200.9	194.0	152.3	112.6	79.3	43.1	26.4	21.6
107.5°	204.4	204.4	201.6	189.1	172.4	135.6	99.4	66.7	38.2	25.7	21.6

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REPORT NUMBER: P979128
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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
110°	*192.6*	191.2	186.3	175.9	156.4	123.8	87.6	57.0	35.5	25.7	20.9
112.5°	*181.5*	181.5	175.2	162.7	139.7	109.8	77.2	49.4	34.1	25.0	20.2
115°	*168.9*	167.6	161.3	146.0	125.8	97.3	68.1	44.5	32.7	23.6	18.1
117.5°	*150.9*	150.9	146.0	133.5	111.9	86.2	61.9	41.7	32.0	22.2	16.7
120°	*137.0*	137.0	132.1	118.9	99.4	76.5	54.9	38.9	30.6	20.9	15.3
122.5°	*124.4*	124.4	118.2	105.0	86.2	66.7	48.0	36.8	29.2	19.5	13.2
125°	*109.2*	109.8	104.3	91.8	74.4	59.1	43.8	35.5	28.5	17.4	11.8
127.5°	*97.3*	95.9	90.4	78.6	64.7	51.4	41.0	34.1	27.1	16.0	10.4
130°	*82.0*	81.3	76.5	66.7	57.0	48.7	40.3	32.7	25.0	13.9	9.0
132.5°	*70.2*	68.8	64.7	58.4	51.4	46.6	38.9	31.3	22.9	11.8	7.6
135°	*59.1*	58.4	55.6	53.5	48.0	43.8	37.5	29.2	20.9	10.4	6.3
137.5°	*52.1*	52.1	50.8	49.4	45.9	41.7	35.5	27.8	18.8	8.3	4.9
140°	*48.7*	48.7	49.4	48.7	44.5	39.6	34.1	26.4	16.7	7.6	4.2
142.5°	*49.4*	49.4	49.4	47.3	43.1	38.2	32.0	24.3	14.6	6.3	3.5
145°	*51.4*	51.4	49.4	45.9	41.0	35.5	29.9	21.6	12.5	4.9	2.8
147.5°	*50.1*	49.4	46.6	41.7	36.8	32.7	26.4	18.1	10.4	4.2	2.8
150°	*46.6*	45.9	41.7	37.5	33.4	28.5	22.2	15.3	8.3	3.5	2.1
152.5°	*41.0*	40.3	36.8	32.0	27.8	23.6	18.8	11.8	6.3	2.8	2.1
155°	*31.3*	31.3	28.5	25.0	21.6	18.8	14.6	9.7	4.9	2.1	1.4
157.5°	*22.9*	22.9	21.6	19.5	17.4	15.3	11.8	7.6	3.5	1.4	1.4
160°	*18.8*	18.8	18.1	16.0	13.9	12.5	9.0	6.3	2.8	1.4	1.4
162.5°	*16.0*	15.3	14.6	13.2	11.1	9.0	6.3	4.2	2.8	1.4	1.4
165°	*12.5*	12.5	11.8	10.4	8.3	7.0	4.9	3.5	2.1	1.4	1.4
167.5°	*9.0*	9.0	8.3	7.0	5.6	4.2	2.8	2.1	2.1	1.4	1.4
170°	*5.6*	5.6	4.9	4.2	2.8	2.8	2.1	2.1	1.4	1.4	1.4
172.5°	*2.1*	2.1	1.4	1.4	2.1	2.1	1.4	1.4	1.4	1.4	1.4
175°	*0.7*	0.7	0.7	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0.7
177.5°	*0.0*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	*0.0*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1745.0	1745.0	1745.0	1745.0	1745.0	1745.0	1745.0	1745.0	1745.0	1745.0
2.5°	1711.0	1662.3	1652.6	1644.2	1642.8	1627.6	1615.0	1602.5	1607.4	1604.6
5°	1670.7	1635.2	1615.7	1576.8	1549.0	1512.8	1503.8	1483.6	1478.1	1480.2
7.5°	1623.4	1594.2	1533.0	1488.5	1468.3	1494.8	1478.8	1425.9	1407.2	1399.5
10°	1581.7	1534.4	1464.2	1466.3	1399.5	1352.2	1320.3	1275.1	1248.6	1255.6
12.5°	1560.8	1483.6	1425.2	1365.4	1283.4	1188.2	1133.2	1124.9	1143.0	1147.1
15°	1549.0	1439.1	1399.5	1259.1	1136.7	1104.0	1092.2	1049.8	1006.7	1010.9
17.5°	1538.6	1405.8	1296.6	1140.9	1070.7	999.1	868.4	821.8	816.9	813.4
20°	1504.5	1369.6	1214.6	1074.1	976.1	800.2	744.6	667.4	625.0	618.1
22.5°	1457.9	1316.1	1122.8	1008.1	806.5	682.0	564.5	518.6	492.2	486.7
25°	1412.0	1234.7	1048.4	878.1	693.8	540.2	451.9	415.1	402.5	399.8
27.5°	1362.7	1158.3	985.8	736.3	572.9	447.0	374.7	345.5	329.5	324.7
30°	1314.0	1076.9	889.2	641.7	476.2	369.9	312.2	283.7	273.9	271.1
32.5°	1250.0	1003.9	773.8	551.3	393.5	312.9	257.9	232.9	221.8	221.1
35°	1187.5	927.4	661.9	466.5	335.8	255.2	212.0	186.3	173.8	175.2
37.5°	1115.9	855.8	579.1	388.6	273.9	211.4	168.2	150.2	139.0	138.4
40°	1049.1	788.4	508.9	328.2	226.0	166.9	136.3	116.1	109.8	109.2
42.5°	972.6	705.0	440.8	277.4	185.6	137.7	108.5	93.2	87.6	87.6
45°	881.6	606.2	363.6	221.8	148.1	109.8	86.2	73.7	68.1	67.4
47.5°	791.9	517.3	296.2	180.8	120.3	86.9	68.1	57.7	54.2	53.5
50°	705.7	446.3	246.1	146.0	99.4	68.1	52.8	45.9	41.7	41.7
52.5°	637.5	392.1	209.3	120.3	80.0	53.5	42.4	35.5	36.2	36.8
55°	581.9	345.5	172.4	100.8	63.3	41.7	32.0	29.2	31.3	31.3
57.5°	527.7	285.7	142.5	84.8	49.4	34.1	23.6	24.3	25.7	25.7
59°	*495.7*	*255.2*	*127.2*	*77.2*	*43.1*	*28.5*	*19.5*	*20.9*	*20.2*	*20.2*
60°	471.4	237.1	118.9	70.2	38.2	25.0	17.4	17.4	16.7	16.7
62.5°	413.7	189.1	100.1	57.0	29.2	16.0	11.1	10.4	9.0	9.7
65°	339.3	150.2	82.7	45.2	21.6	9.0	4.2	2.8	2.1	1.4
67.5°	273.9	121.0	66.7	34.8	14.6	2.8	0.0	0.0	0.0	0.0
70°	214.8	97.3	54.2	26.4	7.6	0.0	0.0	0.0	0.0	0.0
72.5°	166.2	79.3	43.8	18.1	2.1	0.0	0.0	0.0	0.0	0.0
75°	123.1	64.0	33.4	11.8	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	90.4	48.7	25.7	7.6	0.0	0.0	0.0	0.0	0.0	0.0
80°	68.8	38.2	19.5	4.2	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	52.8	29.9	14.6	2.1	0.0	0.0	0.0	0.0	0.0	0.0
85°	39.6	22.9	11.1	1.4	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	30.6	18.8	9.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0
90°	24.3	14.6	7.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	20.9	12.5	5.6	0.7	0.0	0.0	0.0	0.0	0.0	0.0
95°	18.8	11.1	4.9	0.7	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	18.1	10.4	4.2	0.7	0.0	0.0	0.0	0.0	0.0	0.0
100°	17.4	9.7	3.5	0.7	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	17.4	9.7	3.5	0.7	0.0	0.0	0.0	0.0	0.0	0.0
105°	17.4	9.0	2.8	0.7	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	17.4	8.3	2.8	0.7	0.0	0.0	0.0	0.0	0.0	0.0

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report

REPORT NUMBER: P979128
CATALOG NUMBER: WPSLED15S-40W-3000K

CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	16.7	7.6	2.1	0.7	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	16.0	6.3	2.1	0.7	0.0	0.0	0.0	0.0	0.0	0.0
115°	13.9	4.9	2.1	0.7	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	11.8	3.5	2.1	0.7	0.0	0.0	0.0	0.0	0.0	0.0
120°	9.0	2.8	1.4	0.7	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	7.6	2.1	1.4	0.7	0.0	0.0	0.0	0.0	0.0	0.0
125°	7.0	1.4	1.4	0.7	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	6.3	1.4	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0
130°	5.6	1.4	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	4.9	1.4	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0
135°	4.2	1.4	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	3.5	1.4	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0
140°	2.8	1.4	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	2.8	1.4	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0
145°	2.8	1.4	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0
147.5°	2.1	1.4	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0
150°	2.1	1.4	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	1.4	1.4	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0
155°	1.4	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	1.4	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0
160°	1.4	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	1.4	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	1.4	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	1.4	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	1.4	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

Lumark

Report Number: SP1-2407-168-1

Test Date: 08/08/2024

Luminaire Tested: LSDL-92S-100W 3000k

Data in this report applies to families of products including LSDL-92S-100W 3000k.

Report Generated By FNC07603 / LDUCLS01DT446
Version: v7.04

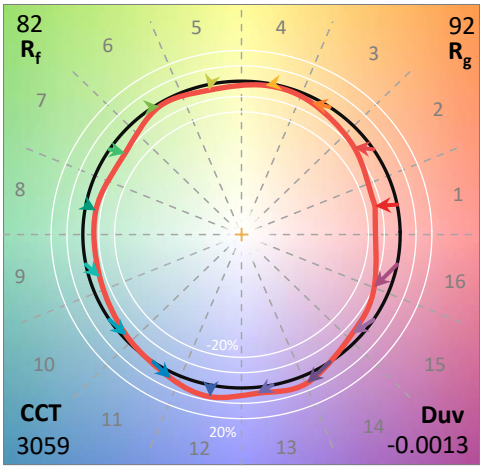
Test Information

Test Method:	LM-79-2019
Report Number:	SP1-2407-168-1
Test Lab:	COOPER LIGHTING SOLUTIONS
Photometer:	SP1 - 76IN SPHERE
Measurement Geometry:	4π
Issue Date:	08/12/2024
Manufacturer:	COOPER LIGHTING SOLUTIONS
Product Line:	Lumark
Catalog Number:	**LSDL-92S-100W 3000k**
Description:	Lumark Wallpack 100W

Spectral Parameters

CCT (K):	3059	CRI (Ra):	79.3		
CIE u':	0.2490	R1:	78.1	R9:	-8.3
CIE v':	0.5184	R2:	92.3	R10:	82.8
Duv:	-0.0013	R3:	91.2	R11:	73.1
CIE x:	0.4310	R4:	74.6	R12:	70.5
CIE y:	0.3988	R5:	78.8	R13:	81.8
CIE z:	0.1702	R6:	90.5	R14:	95.7
Peak Wavelength (nm):	600	R7:	77.6	R15:	69.8
Dominant Wavelength (nm):	583	R8:	50.9		
Purity:	49.0643				

Rf:	81.8
Rg:	91.9



Test Conditions

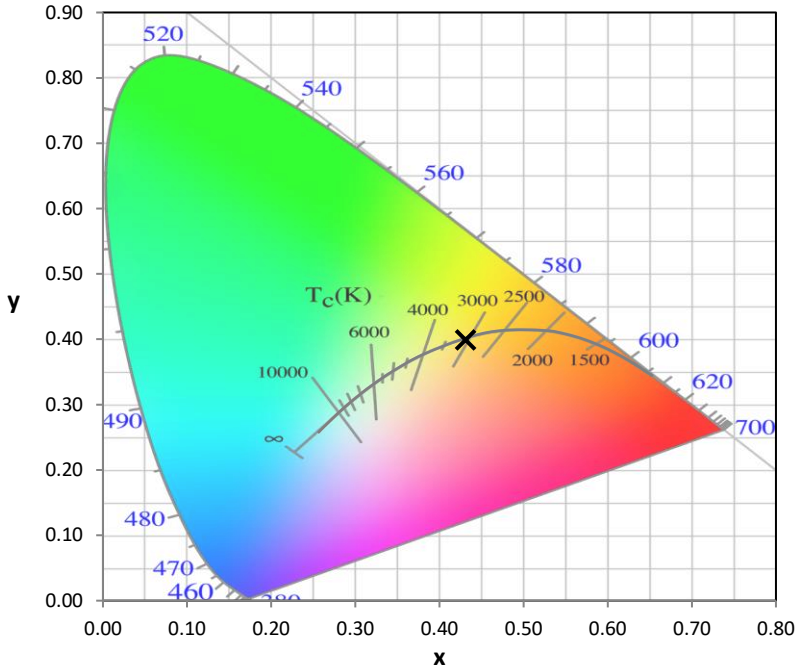
Stabilization Time:	51M
Operation Time:	1H 51M
Sphere Temperature (°C):	24.2

REPORT NUMBER: SP1-2407-168-1

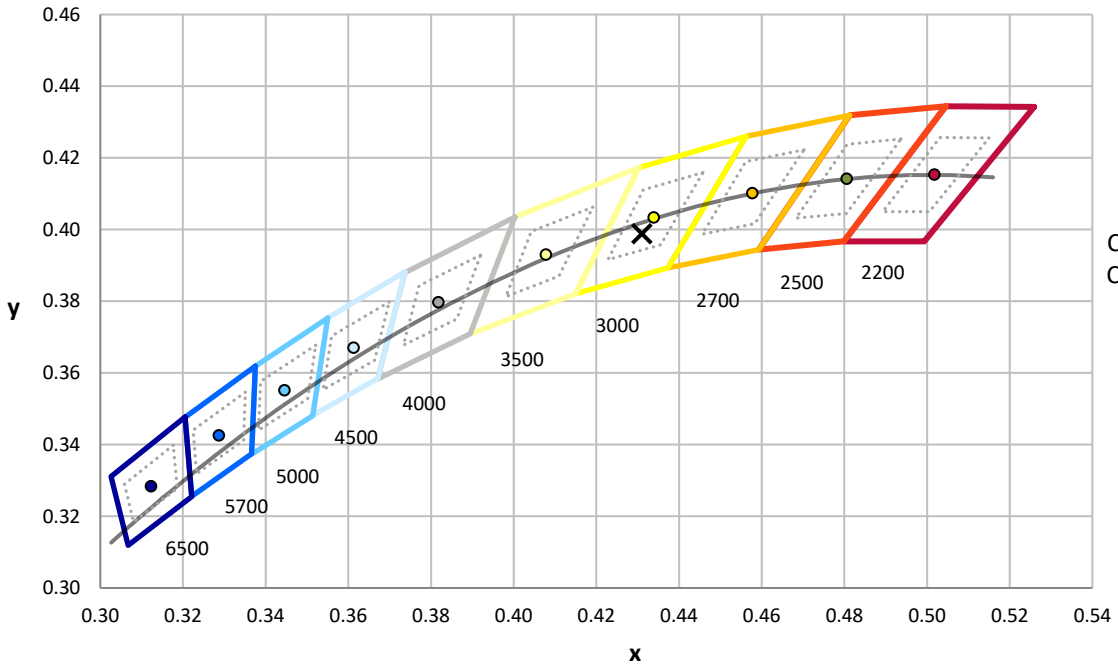
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085	10/24/2023	10/24/2024
Room Thermometer	IN0046	10/24/2023	10/24/2024

REPORT NUMBER: SP1-2407-168-1

CIE 1931 Chromaticity Diagram



CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles

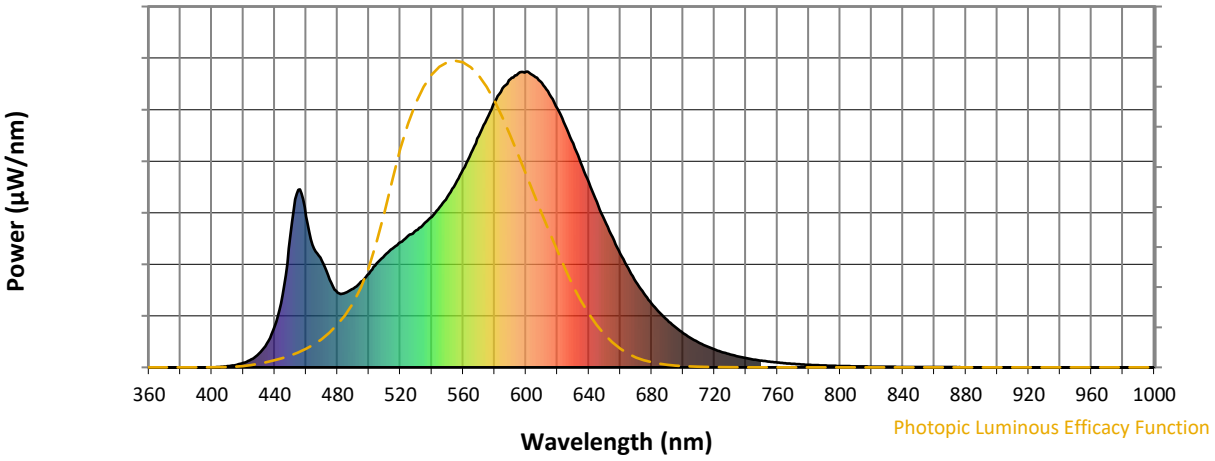


CCT = 3059K
CIE x = 0.4310
CIE y = 0.3988
Duv = -0.0013

Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2407-168-1

Photopic Flux vs. Wavelength

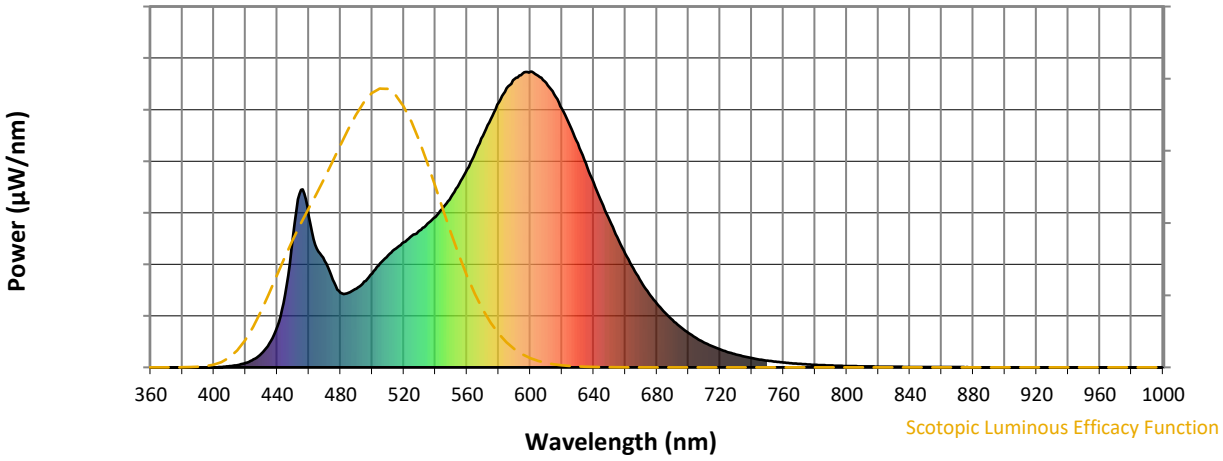


Photopic Lumens: NR

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	266	NR	620	875	NR	750	23	NR	880	0	NR
365	0	NR	495	290	NR	625	818	NR	755	19	NR	885	0	NR
370	0	NR	500	317	NR	630	758	NR	760	16	NR	890	0	NR
375	0	NR	505	352	NR	635	690	NR	765	14	NR	895	0	NR
380	0	NR	510	379	NR	640	625	NR	770	12	NR	900	0	NR
385	0	NR	515	402	NR	645	560	NR	775	10	NR	905	0	NR
390	0	NR	520	423	NR	650	498	NR	780	9	NR	910	0	NR
395	0	NR	525	445	NR	655	440	NR	785	7	NR	915	0	NR
400	0	NR	530	463	NR	660	385	NR	790	6	NR	920	0	NR
405	1	NR	535	486	NR	665	335	NR	795	5	NR	925	0	NR
410	4	NR	540	509	NR	670	289	NR	800	5	NR	930	0	NR
415	8	NR	545	542	NR	675	250	NR	805	4	NR	935	0	NR
420	15	NR	550	577	NR	680	216	NR	810	3	NR	940	0	NR
425	27	NR	555	620	NR	685	185	NR	815	3	NR	945	0	NR
430	46	NR	560	670	NR	690	160	NR	820	3	NR	950	0	NR
435	81	NR	565	725	NR	695	136	NR	825	2	NR	955	0	NR
440	139	NR	570	782	NR	700	116	NR	830	2	NR	960	0	NR
445	246	NR	575	840	NR	705	99	NR	835	2	NR	965	0	NR
450	446	NR	580	896	NR	710	84	NR	840	1	NR	970	0	NR
455	601	NR	585	944	NR	715	71	NR	845	1	NR	975	0	NR
460	511	NR	590	975	NR	720	61	NR	850	1	NR	980	0	NR
465	402	NR	595	994	NR	725	51	NR	855	1	NR	985	0	NR
470	359	NR	600	1000	NR	730	44	NR	860	1	NR	990	0	NR
475	297	NR	605	985	NR	735	37	NR	865	1	NR	995	0	NR
480	252	NR	610	962	NR	740	32	NR	870	1	NR	1000	0	NR
485	252	NR	615	923	NR	745	27	NR	875	1	NR			

REPORT NUMBER: SP1-2407-168-1

Scotopic Flux vs. Wavelength

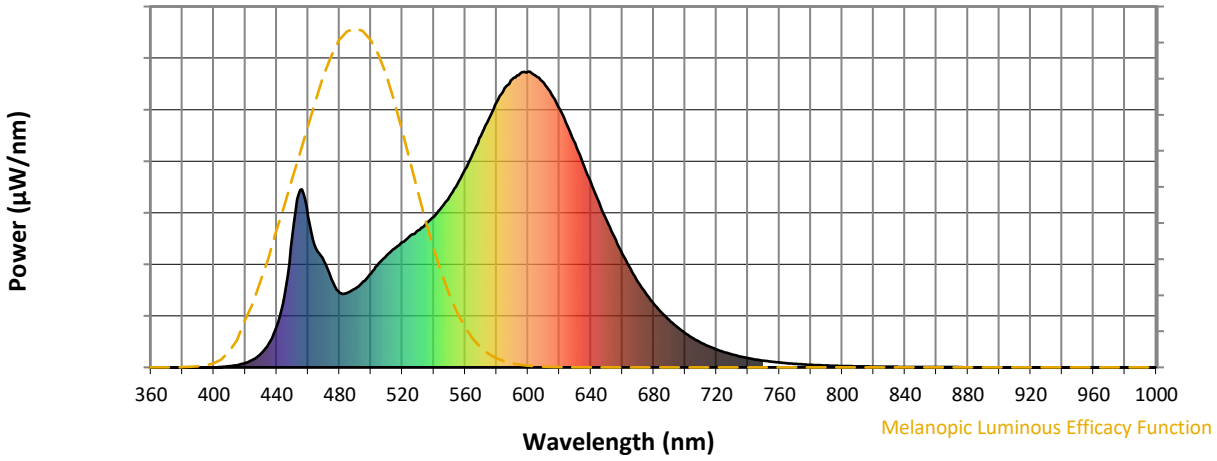


Scotopic Lumens: NR **S/P: 1.39**

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	266	NR	620	875	NR	750	23	NR	880	0	NR
365	0	NR	495	290	NR	625	818	NR	755	19	NR	885	0	NR
370	0	NR	500	317	NR	630	758	NR	760	16	NR	890	0	NR
375	0	NR	505	352	NR	635	690	NR	765	14	NR	895	0	NR
380	0	NR	510	379	NR	640	625	NR	770	12	NR	900	0	NR
385	0	NR	515	402	NR	645	560	NR	775	10	NR	905	0	NR
390	0	NR	520	423	NR	650	498	NR	780	9	NR	910	0	NR
395	0	NR	525	445	NR	655	440	NR	785	7	NR	915	0	NR
400	0	NR	530	463	NR	660	385	NR	790	6	NR	920	0	NR
405	1	NR	535	486	NR	665	335	NR	795	5	NR	925	0	NR
410	4	NR	540	509	NR	670	289	NR	800	5	NR	930	0	NR
415	8	NR	545	542	NR	675	250	NR	805	4	NR	935	0	NR
420	15	NR	550	577	NR	680	216	NR	810	3	NR	940	0	NR
425	27	NR	555	620	NR	685	185	NR	815	3	NR	945	0	NR
430	46	NR	560	670	NR	690	160	NR	820	3	NR	950	0	NR
435	81	NR	565	725	NR	695	136	NR	825	2	NR	955	0	NR
440	139	NR	570	782	NR	700	116	NR	830	2	NR	960	0	NR
445	246	NR	575	840	NR	705	99	NR	835	2	NR	965	0	NR
450	446	NR	580	896	NR	710	84	NR	840	1	NR	970	0	NR
455	601	NR	585	944	NR	715	71	NR	845	1	NR	975	0	NR
460	511	NR	590	975	NR	720	61	NR	850	1	NR	980	0	NR
465	402	NR	595	994	NR	725	51	NR	855	1	NR	985	0	NR
470	359	NR	600	1000	NR	730	44	NR	860	1	NR	990	0	NR
475	297	NR	605	985	NR	735	37	NR	865	1	NR	995	0	NR
480	252	NR	610	962	NR	740	32	NR	870	1	NR	1000	0	NR
485	252	NR	615	923	NR	745	27	NR	875	1	NR			

REPORT NUMBER: SP1-2407-168-1

Melanopic Flux vs. Wavelength



Melanopic Lumens: NR **M/P: 2.77**

λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)	λ (nm)	Power W^/nm	Lumens (ϕ/nm)
360	0	NR	490	266	NR	620	875	NR	750	23	NR	880	0	NR
365	0	NR	495	290	NR	625	818	NR	755	19	NR	885	0	NR
370	0	NR	500	317	NR	630	758	NR	760	16	NR	890	0	NR
375	0	NR	505	352	NR	635	690	NR	765	14	NR	895	0	NR
380	0	NR	510	379	NR	640	625	NR	770	12	NR	900	0	NR
385	0	NR	515	402	NR	645	560	NR	775	10	NR	905	0	NR
390	0	NR	520	423	NR	650	498	NR	780	9	NR	910	0	NR
395	0	NR	525	445	NR	655	440	NR	785	7	NR	915	0	NR
400	0	NR	530	463	NR	660	385	NR	790	6	NR	920	0	NR
405	1	NR	535	486	NR	665	335	NR	795	5	NR	925	0	NR
410	4	NR	540	509	NR	670	289	NR	800	5	NR	930	0	NR
415	8	NR	545	542	NR	675	250	NR	805	4	NR	935	0	NR
420	15	NR	550	577	NR	680	216	NR	810	3	NR	940	0	NR
425	27	NR	555	620	NR	685	185	NR	815	3	NR	945	0	NR
430	46	NR	560	670	NR	690	160	NR	820	3	NR	950	0	NR
435	81	NR	565	725	NR	695	136	NR	825	2	NR	955	0	NR
440	139	NR	570	782	NR	700	116	NR	830	2	NR	960	0	NR
445	246	NR	575	840	NR	705	99	NR	835	2	NR	965	0	NR
450	446	NR	580	896	NR	710	84	NR	840	1	NR	970	0	NR
455	601	NR	585	944	NR	715	71	NR	845	1	NR	975	0	NR
460	511	NR	590	975	NR	720	61	NR	850	1	NR	980	0	NR
465	402	NR	595	994	NR	725	51	NR	855	1	NR	985	0	NR
470	359	NR	600	1000	NR	730	44	NR	860	1	NR	990	0	NR
475	297	NR	605	985	NR	735	37	NR	865	1	NR	995	0	NR
480	252	NR	610	962	NR	740	32	NR	870	1	NR	1000	0	NR
485	252	NR	615	923	NR	745	27	NR	875	1	NR			

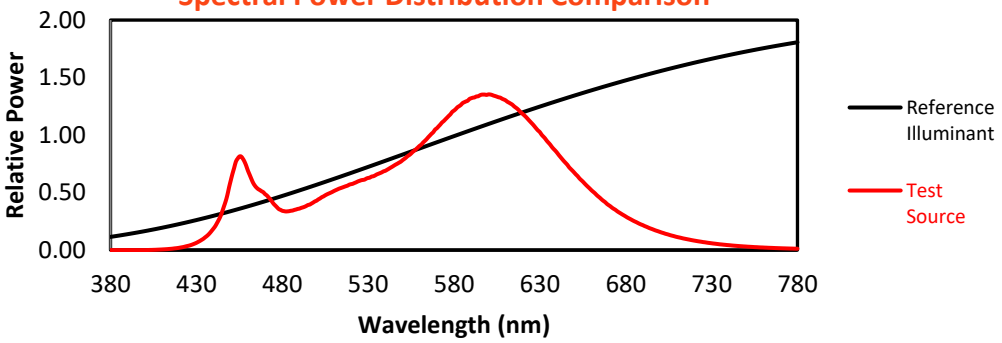
REPORT NUMBER: SP1-2407-168-1

TM-30-18

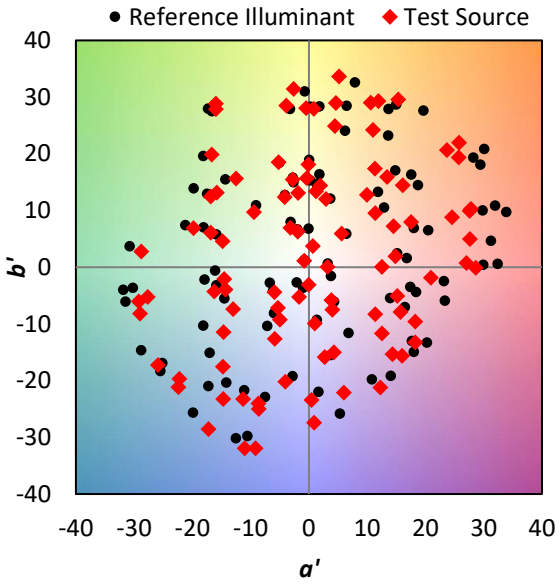
Summary

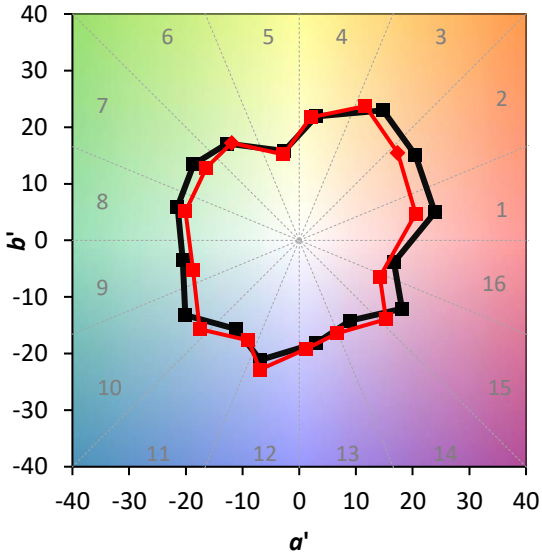
R_f = 81.8
R_g = 91.9
CIE R_a = 79.3
R_9 = -8.3

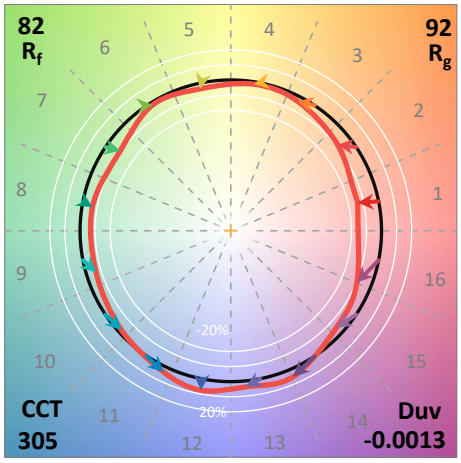
Spectral Power Distribution Comparison

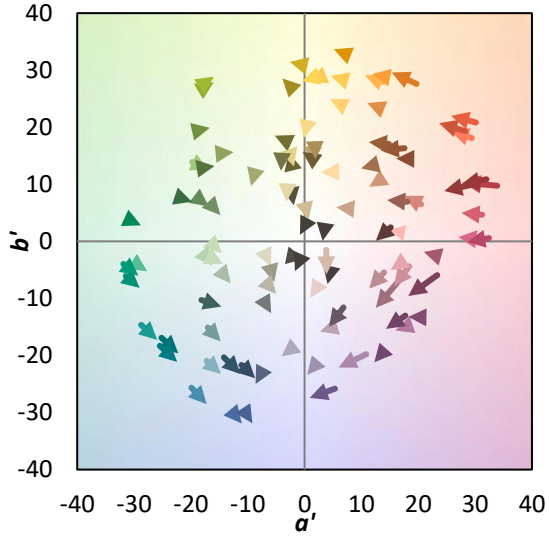


Color Vector Graphics







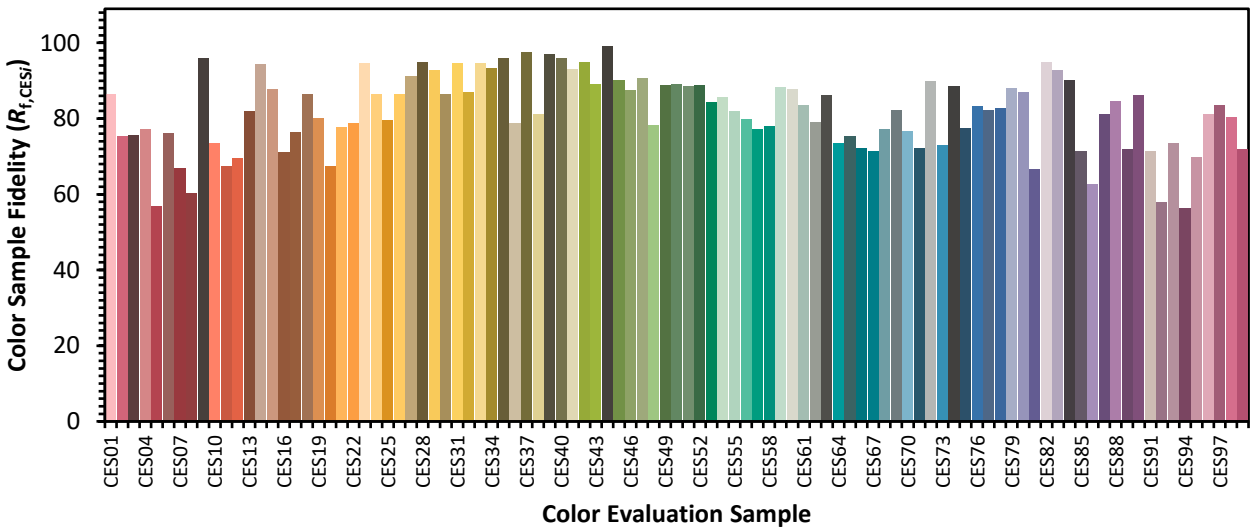


REPORT NUMBER: SP1-2407-168-1

TM-30-18

Individual Sample Fidelity Index ($R_{f,i}$)

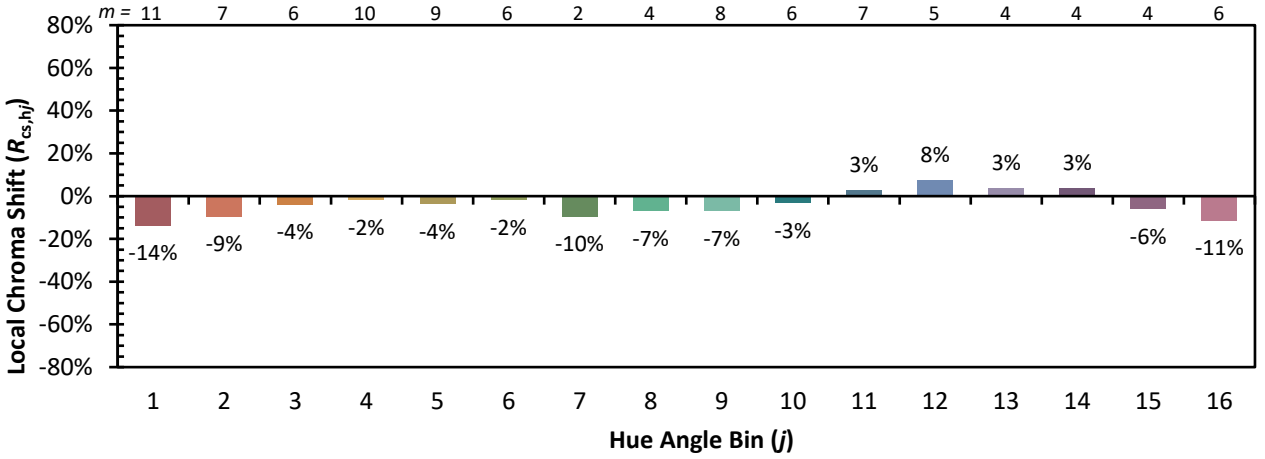
CES01 = 86	CES26 = 86	CES51 = 88	CES76 = 83
CES02 = 63	CES27 = 91	CES52 = 89	CES77 = 82
CES03 = 31	CES28 = 95	CES53 = 84	CES78 = 83
CES04 = 71	CES29 = 93	CES54 = 86	CES79 = 88
CES05 = 49	CES30 = 86	CES55 = 82	CES80 = 87
CES06 = 51	CES31 = 95	CES56 = 80	CES81 = 67
CES07 = 42	CES32 = 87	CES57 = 77	CES82 = 95
CES08 = 40	CES33 = 95	CES58 = 78	CES83 = 93
CES09 = 29	CES34 = 93	CES59 = 88	CES84 = 90
CES10 = 76	CES35 = 96	CES60 = 88	CES85 = 71
CES11 = 59	CES36 = 79	CES61 = 84	CES86 = 63
CES12 = 65	CES37 = 98	CES62 = 79	CES87 = 81
CES13 = 43	CES38 = 81	CES63 = 86	CES88 = 85
CES14 = 74	CES39 = 97	CES64 = 73	CES89 = 72
CES15 = 71	CES40 = 96	CES65 = 75	CES90 = 86
CES16 = 47	CES41 = 93	CES66 = 72	CES91 = 71
CES17 = 50	CES42 = 95	CES67 = 71	CES92 = 58
CES18 = 56	CES43 = 89	CES68 = 77	CES93 = 74
CES19 = 72	CES44 = 99	CES69 = 82	CES94 = 56
CES20 = 66	CES45 = 90	CES70 = 77	CES95 = 70
CES21 = 87	CES46 = 88	CES71 = 72	CES96 = 81
CES22 = 79	CES47 = 91	CES72 = 90	CES97 = 84
CES23 = 92	CES48 = 78	CES73 = 73	CES98 = 80
CES24 = 91	CES49 = 89	CES74 = 89	CES99 = 72
CES25 = 72	CES50 = 89	CES75 = 78	

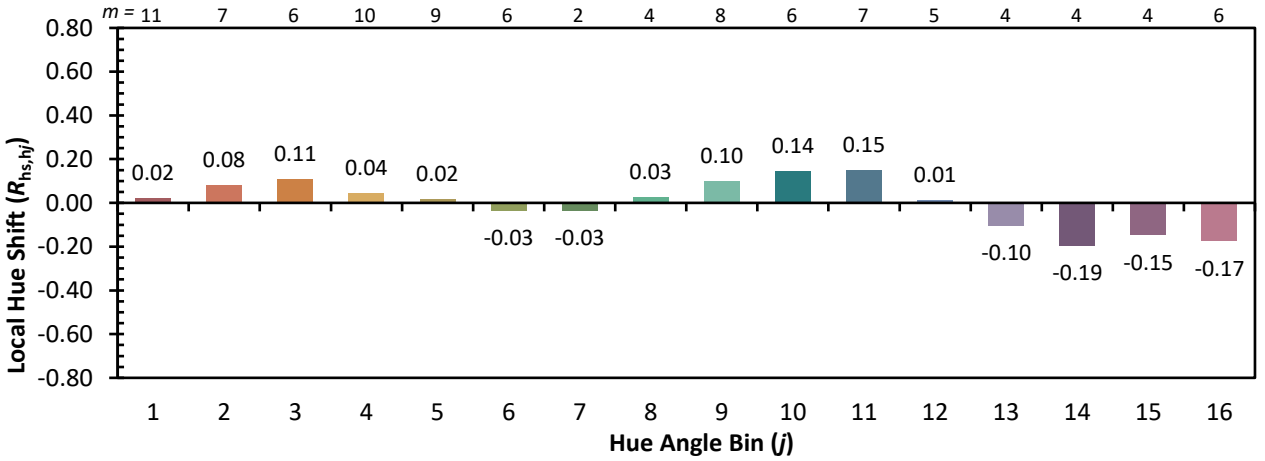


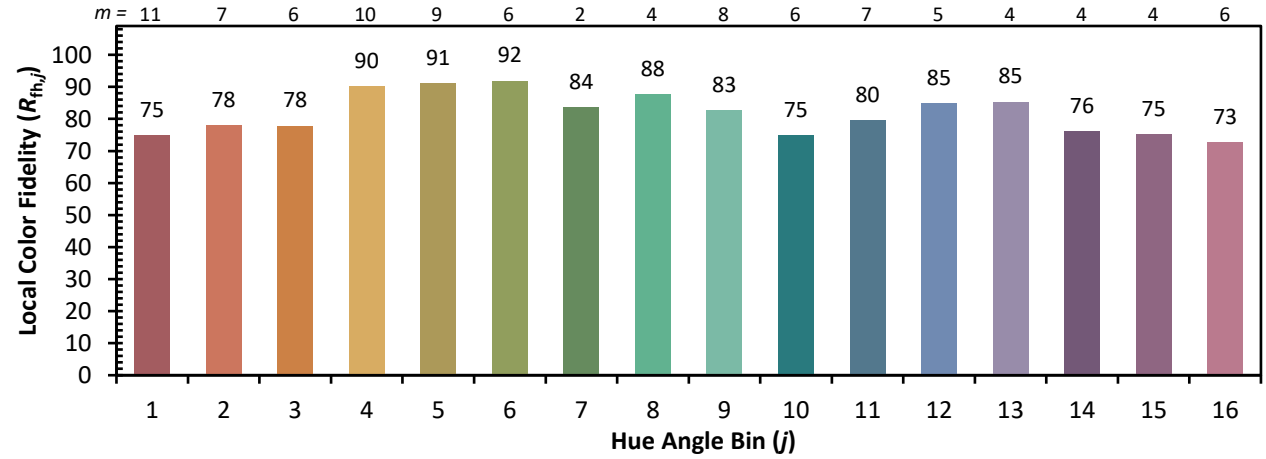
REPORT NUMBER: SP1-2407-168-1

TM-30-18

Color Rendition by Hue-Angle Bin







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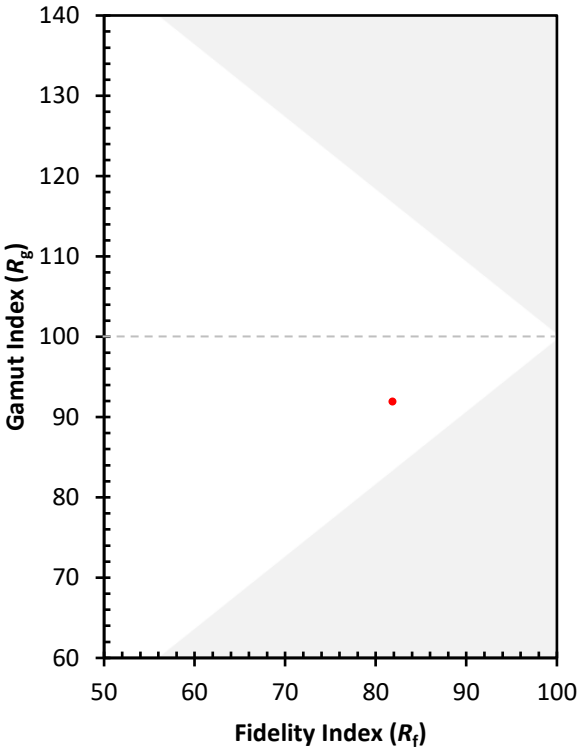
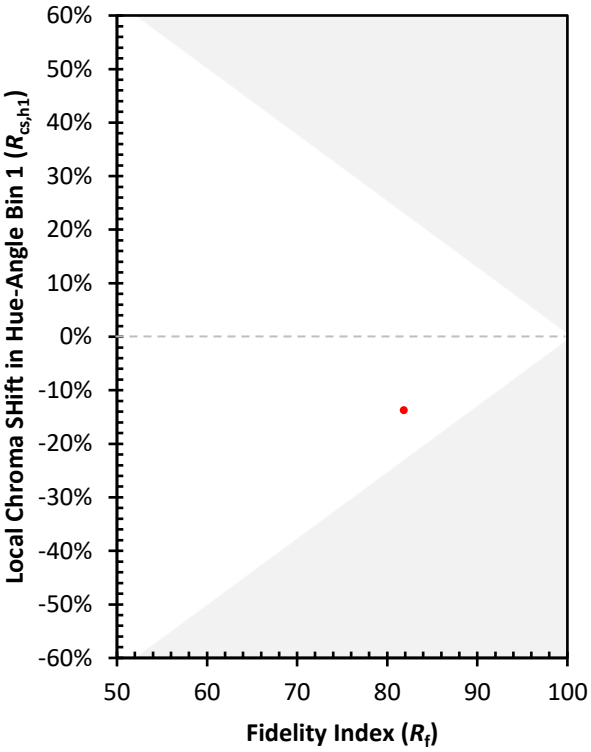
Measure Comparisons





(END OF REPORT)